

Amendments to the Claims

Please amend Claims 1, 4, 5, 8, 11, 12, 14, 15, 18, 19, 20, 22, 24, 27 and 28.

Listing of Claims:

This listing of claims will replace all prior versions and listings of claims in the application:

Claim 1 (currently amended): An apparatus for facilitating communications between a ~~processor at a legacy~~ control station and a ~~legacy~~ remote device over a ~~communication~~ packet-switching network, comprising:

a) a software component having a set of instructions stored on a computer-readable medium and executable by [the] a processor of the control station, the instructions comprising:

i) instructions for communicating data from a host application computer program of the control station to the remote device, comprising:

1) a first transmission portion ~~adapted~~ configured to accept signals from ~~a pre-existing~~ the host application computer program in a ~~predetermined~~ non-packet-switched format,

2) a second transmission portion ~~adapted~~ configured to convert the ~~formatted~~ host application computer program signals into [a] packet-switched ~~format~~ data for transmission to [the] a hardware component remote device by means of a packet-switching network, and

3) a third transmission portion ~~adapted~~ configured to generate commands to satisfy at least one host application computer program handshaking protocol; and

ii) instructions for receiving data from ~~the remote device~~, a hardware component, comprising:

1) a first receiving portion ~~adapted~~ configured to accept packet-switched data from the packet-switching network,

2) a second receiving portion ~~adapted~~ configured to convert the packet-switched data into ~~a predetermined~~ non-packet-switched signals having a format corresponding to the pre-existing communication protocol of compatible with the control station host application computer program, and

3) a third receiving portion ~~adapted~~ configured to generate commands to satisfy at least one host application computer program handshaking protocol; and

b) a hardware ~~interface~~ component ~~located in proximity to~~ proximate the remote device, comprising:

i) a transceiver portion electrically coupled to the packet-switching network and ~~adapted~~ configured to:

1) accept packet-switched ~~signals~~ data from the ~~network~~, software component, and

2) send packet-switched ~~signals~~ data to the ~~network~~; software component;

ii) a remote processor ~~electrically coupled intermediate to~~ between the transceiver portion and the remote device, the remote processor being ~~adapted~~ configured to:

1) convert packet-switched ~~signals~~ data received from the transceiver to a ~~predetermined~~ non-packet-switched signals having a format ~~corresponding to the communication protocol of~~ compatible with the remote device, and

2) convert ~~formatted non-packet-switched signals corresponding to the communication protocol of the data received~~ from the remote device to packet-switched data; and

iii) a bidirectional data interface electrically coupled to the remote device and the remote processor to communicate signals from the remote device to the remote processor and to communicate signals from the remote processor to the remote device,

~~wherein the set of instructions and hardware interface component cooperate to facilitate communication between a legacy remote device and a corresponding legacy host application computer program by means of the communication network.~~

wherein the control station and the remote device are in communication with each other via the packet-switching network, the control station and remote device using non-packet-switched signals to effect the communication.

Claim 2 (original): The apparatus according to claim 1 wherein the commands to satisfy at least one computer program handshaking protocol comprise programmable connection tuning commands comprising at least one of fast loop-back commands, tickle hold-off commands, block transmit commands, and dynamic packet sizing commands.

Claim 3 (original): The apparatus according to claim 1, further comprising a graphical user interface for configuring the commands to satisfy at least one computer program handshaking protocol.

Claim 4 (currently amended): The apparatus according to claim 1, further comprising a client computer program stored on a computer readable medium for initiating communications between the control station and the remote device.

Claim 5 (currently amended): The apparatus according to claim 4 wherein the client computer program stored on a computer readable medium comprises at least one of an e-mail program and a paging program.

Claim 6 (original): The apparatus according to claim 1 wherein the remote processor further comprises embedded instructions that are executable by the remote processor.

Claim 7 (original): The apparatus according to claim 1 wherein communications between the control station and the remote device are accomplished by means of a secure communications path.

Claim 8 (currently amended): The apparatus according to claim 1 wherein at least one of the host application computer program signals, software component packet switching data, hardware component packet switching data and remote processor signals control station signals and remote device signals are at least one of encrypted ~~prior to transmission and then decrypted after reception.~~

Claim 9 (original): The apparatus according to claim 1 wherein the control station and remote device comprise a SCADA system.

Claim 10 (original): The apparatus according to claim 1 wherein the processor is a computer.

Claim 11 (currently amended): The apparatus according to claim 1 wherein only the hardware interface component initiates communication between the remote device and the control station.

Claim 12 (currently amended): The apparatus according to claim 11 wherein the hardware interface component is adapted to initiate communication with the control station in accordance with at least one of an interval schedule, dialing commands and a triggering event.

Claim 13 (original): The apparatus according to claim 1 wherein the remote processor comprises a microprocessor.

Claim 14 (currently amended): The apparatus according to claim 1, wherein the first transmission portion accepts control and data signals from a ~~preexisting~~ the host application computer program in a ~~predetermined~~ non-packet-switched format.

Claim 15 (currently amended): A method for facilitating communications between a ~~legacy~~ control station and a ~~legacy~~ remote device over a ~~communication~~ packet-switching network, comprising the steps of:

a) providing, at the control station, a software component having a set of instructions stored on a computer-readable medium and executable by a processor [at] of the control station;

b) providing, at the remote device, a hardware ~~interface~~ component in proximity to and in electrical communication with the remote device;

c) ~~facilitating, within the control station, the sending of~~ communications from the control station to the remote device by:

i) accepting, at the software component, signals from a ~~preexisting~~ host application computer program, the signals having a non-packet-switched format,

ii) converting, via the software component, the host application computer program signals ~~from a predetermined format~~ into [a] packet switched format data for transmission and sending the packet-switched data to the remote device hardware component by means of the ~~communication~~ packet-switching network,

iii) generating handshaking commands to satisfy at least one host application computer program handshaking protocol, and

iv) communicating the handshaking commands to the host application computer program;

d) ~~facilitating, within the control station, the receipt of~~ communications from the remote device [to] at the control station by:

i) accepting, at the software component, packet-switched data from the network,

ii) converting the packet-switched data to a ~~predetermined non-packet-switched format corresponding to the communication protocol of signals compatible with~~ the host application computer program, [and]

iii) generating handshaking commands to satisfy at least one host application computer program handshaking ~~protocol; protocol~~, and

iv) communicating the handshaking commands to the host application computer program;

e) facilitating the receipt of communications from the control station [to] at the remote device ~~within the hardware interface component~~ by:

i) accepting packet-switched signals from the network at the hardware component, [and]

ii) converting, via the hardware component, the packet-switched data to a ~~predetermined non-packet-switched format corresponding to the communication protocol of signals compatible with~~ the remote device, and

iii) communicating the ~~converted data~~ non-packet-switched signals to the remote device;

f) facilitating the sending of communications from the remote device to the control station ~~within the hardware interface component~~ by:

i) accepting, at the hardware component, signals from the remote device, the signals having a ~~predetermined non-packet-switched format compatible with corresponding to the communication protocol of the remote device;~~

ii) converting the signals to packet-switched data; and

iii) communicating the packet-switched data to the ~~control station~~ software component by means of the ~~communication~~ packet-switching network, ~~wherein the legacy control station and the legacy remote device communicate via the communication network~~ wherein the control station and the remote device are in communication with each other via the packet-switching network, the control station and remote device using non-packet-switched signals to effect the communication.

Claim 16 (original): The method according to claim 15 wherein the commands to satisfy at least one computer program handshaking protocol comprise programmable connection tuning commands comprising at least one of fast loop-back commands, tickle hold-off commands, block transmit commands, and dynamic packet sizing commands.

Claim 17 (original): The method according to claim 15, further comprising the step of using a graphical user interface to configure the commands to satisfy at least one computer program handshaking protocol.

Claim 18 (currently amended): The method according to claim 15, further comprising the step of using a client computer program stored on a computer readable medium to initiate communications between the control station and the remote device.

Claim 19 (currently amended): The method according to claim 18 wherein the client computer program stored on a computer readable medium comprises at least one of an e-mail program and a paging program.

Claim 20 (currently amended): The method according to claim 15 wherein the steps of converting packet-switched data to a predetermined signal format and converting the signals to packet switched data within the hardware interface component are accomplished using embedded instructions.

Claim 21 (original): The method according to claim 15 wherein communications between the control station and the remote device are accomplished by means of a secure communications path.

Claim 22 (currently amended): The method according to claim 15, further comprising the steps of encrypting at least one of the ~~control station signals and remote device signals~~ host application computer program signals, software component packet switching data, hardware component packet switching data and remote processor signals prior to transmission, and then decrypting at least one of the ~~control station signals and remote device signals~~ host application computer program signals, software component packet switching data, hardware component packet switching data and remote processor signals after reception.

Claim 23 (original): The method according to claim 15 wherein the control station and remote device comprise a SCADA system.

Claim 24 (currently amended): The method according to claim 15 wherein the steps of facilitating, ~~within~~ at the control station, communications from the control station to the remote device and the steps of facilitating, ~~within~~ at the control station, communications from the remote device to the control station, are performed by a computer.

Claim 25 (original): The method according to claim 15 wherein only the remote device initiates communication between the remote device and the control station.

Claim 26 (original): The method according to claim 25 wherein the remote device initiates communication with the control station in accordance with at least one of an interval schedule, dialing commands and a triggering event.

Claim 27 (currently amended): The method according to claim 15 wherein the steps of facilitating, at the remote device, the receipt of communications from the control station via the packet-switching network to the remote device within the hardware interface, and the steps of facilitating communications from the remote device to the control station via the packet switching network within the hardware interface, are performed by a microprocessor of the hardware component.

Claim 28 (currently amended): The method according to claim 15 wherein the signals accepted from the ~~preexisting~~ host application computer program are control and data signals.